

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/510,945
Attorney Docket No. Q84019

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended): A power-saving effect ~~displaying calculating~~ unit in an inverter that changes operation frequencies of a three-phase alternating current electric motor, comprising:

a power-consumption computing unit that calculates a power consumption based on an output voltage, which is calculated by an output-voltage computing unit using an output frequency and a bus voltage, and an output current of the inverter; and

a power-saving-effect generating unit that generates an instantaneous power-saving effect, at the time of ~~inverter a general operation of the inverter with respect as compared to a commercial operation without the inverter, from electric characteristic the instantaneous power consumption at the time of a general operation of the inverter obtained from the power-consumption computing unit and data that result resulting from a comparison of a first instantaneous power consumption at the time of the general operation of the inverter operation and a second instantaneous power consumption at the time of the commercial operation without the inverter both calculated by the power-consumption computing unit.~~

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/510,945
Attorney Docket No. Q84019

2. (currently amended): The power-saving effect displaying calculating unit in an inverter according to claim 1, wherein the power-consumption computing unit calculates the power consumption for a plurality of sampling periods, and

wherein the power-saving-effect generating unit further calculates an integration of the power-saving effect over the sampling periods to obtain an integration value.

3. (currently amended): The power-saving effect displaying calculating unit in an inverter according to claim 1, further comprising an arrangement that displays at least one of the power-saving effect and an integration value that is calculated by integrating the power-saving effect obtained by the power-saving-effect generating unit over a plurality of time periods.

4. (currently amended): The power-saving effect displaying calculating unit in an inverter according to claim 2, further comprising an arrangement that displays at least one of the power-saving effect and the integration value ~~obtained by the power-saving-effect generating unit~~.

5. (currently amended): A power-saving effect displaying unit in an inverter that changes operation frequencies of a three-phase alternating current electric motor, comprising:

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Application No. 10/510,945

Attorney Docket No. Q84019

a power-consumption computing unit that calculates a power consumption under operation with the inverter based on a voltage obtained by an output-voltage computing unit and a current obtained by a current detecting unit, said power consumption being calculated for a sampling period; and

a power-saving-effect generating unit that generates a power-saving effect based on the power consumption, wherein:

wherein the power-saving effect that can be obtained obtainable under a general operation with an the inverter with respect as compared to a commercial operation without the inverter is displayed based on electric characteristic data that is obtained by comparing an a first instantaneous power consumption under the general operation with the inverter and an a second instantaneous power consumption under the commercial operation without the inverter, that are as calculated by the power-consumption computing unit, and

wherein the power-saving effect is calculated by multiplying a difference between an electric characteristic the second instantaneous power consumption under general damper control the commercial operation without the inverter and an electric characteristic the first instantaneous power consumption under the general operation with the inverter, representing electric characteristic data and resulting from the comparison with power consumption under the commercial operation by a ratio between the power consumption under the operation with the inverter calculated every for the sampling period and the electric characteristic that represents

AMENDMENT UNDER 37 C.F.R. § 1.111
U.S. Application No. 10/510,945
Attorney Docket No. Q84019

first instantaneous power consumption at the time of under the general inverter operation of the inverter.

6. (new): A power-saving effect calculating unit in an inverter that changes operation frequencies of a three-phase alternating current electric motor, the power-saving effect calculating unit comprising:

a power-consumption computing unit that calculates a power consumption under operation with the inverter based on a voltage obtained by an output-voltage computing unit and a current obtained by a current detecting unit, said power consumption being calculated for a sampling period; and

a power-saving-effect generating unit that generates a power-saving effect based on the power consumption;

wherein the power-saving effect obtainable under a general operation with the inverter as compared to a commercial operation without the inverter is calculated based on the instantaneous power consumption obtained from the power-consumption computing unit and data obtained by comparing a first instantaneous power consumption under the general operation with the inverter and a second instantaneous power consumption under the commercial operation without the inverter, and

wherein the power-saving effect is calculated by multiplying a difference between the second instantaneous power consumption under the commercial operation without the inverter

AMENDMENT UNDER 37 C.F.R. § 1.111

U.S. Application No. 10/510,945

Attorney Docket No. Q84019

and the first instantaneous power consumption under the general operation with the inverter, by a ratio between the power consumption under the operation with the inverter for the sampling period and the first instantaneous power consumption under the general operation of the inverter.